

## CLAIM AMENDMENTS

1. (currently amended) A method for determining a characteristic of a subsurface earth formation surrounding a borehole, comprising:
  - (a) calculating at least one parameter representative of a property of the formation using empirical log data obtained with a first well tool disposed within the borehole;
  - (b) modeling log data representative of log data theoretically obtainable with a second well tool disposed within the borehole;
  - (c) correlating the modeled log data with the at least one calculated parameter to simulate log data; and
  - (d) comparing empirical log data obtained with the second well tool disposed within the borehole against the simulated log data to determine ~~the~~ a resistivity anisotropy profile of the formation-characteristic.
2. canceled
3. (previously amended) The method of claim 1, wherein step (d) comprises calculating a ratio between the log data obtained with the second well tool and the simulated log data.
4. (previously amended) The method of claim 1, wherein step (d) comprises calculating the difference between the log data obtained with the second well tool and the simulated log data.
5. (previously amended) The method of claim 4, wherein step (d) comprises multiplying the calculated difference by a predetermined factor.
6. (original) The method of claim 1, wherein the first well tool is an induction-type tool.
7. (original) The method of claim 1, wherein the second well tool is a laterolog-type tool.
8. (currently amended) The method of claim 1, wherein the determined ~~formation characteristic~~ is anisotropy profile comprises one of a horizontal a resistivity component value or vertical resistivity component-profile.
9. (original) The method of claim 1, wherein the method is performed during or after drilling of the borehole.

10. (currently amended) A method for determining a characteristic of a subsurface earth formation surrounding a borehole, comprising:
  - (a) disposing first and second well tools within the borehole to obtain measurement data;
  - (b) producing at least one parameter representative of a property of the formation from the measurement data obtained with the first well tool;
  - (c) applying the at least one produced parameter to a response model of the second well tool to produce theoretical data representative of measurement data obtainable with the second well tool disposed within the borehole; and
  - (d) comparing the theoretical data of step (c) against the measurement data obtained with the second well tool to determine ~~the~~ a resistivity anisotropy profile of the formation characteristic.
11. canceled
12. (original) The method of claim 10, wherein step (d) comprises calculating a ratio between the measurement data obtained with the second well tool and the produced theoretical data.
13. (original) The method of claim 10, wherein step (d) comprises calculating the difference between the measurement data obtained with the second well tool and the produced theoretical data.
14. (original) The method of claim 13, wherein step (d) comprises multiplying the calculated difference by a predetermined factor.
15. (original) The method of claim 10, wherein the first well tool is an induction-type tool.
16. (original) The method of claim 10, wherein the second well tool is a laterolog-type tool.
17. (currently amended) The method of claim 10 wherein the determined ~~formation characteristic~~ is anisotropy profile comprises one of a horizontal a resistivity component value or vertical resistivity component profile.
18. (original) The method of claim 10, wherein the method is performed during or after drilling of the borehole.

19. (currently amended) A well logging system including first and second well tools adapted to be moveable through a borehole and an apparatus adapted to be coupled to the well tools, the apparatus being adapted to respond to data obtained with the well tools to determine a characteristic of a formation, the apparatus comprising:
- means for calculating at least one parameter representative of a property of the formation using empirical log data obtained with the first well tool disposed within the borehole;
  - means for modeling log data that is representative of log data theoretically obtainable with the second well tool disposed within the borehole;
  - means for correlating the modeled log data with the at least one calculated parameter to simulate log data; and
  - means for comparing empirical log data obtained with the second well tool disposed within the borehole against the simulated log data to determine ~~the~~ a resistivity anisotropy profile of the formation characteristic.
20. canceled
21. (previously amended) The system of claim 19, the comparison means further comprising means for calculating a ratio between the log data obtained with the second well tool and the simulated log data.
22. (previously amended) The system of claim 19, the comparison means further comprising means for calculating the difference between the log data obtained with the second well tool and the simulated log data.
23. (original) The system of claim 19, wherein the first well tool is an induction-type tool.
24. (original) The system of claim 19, wherein the second well tool is a laterolog-type tool.
25. (currently amended) The system of claim 19, wherein the determined ~~formation characteristic is~~ anisotropy profile comprises one of a horizontal a resistivity component value or vertical resistivity component-profile.
26. (original) A program storage device readable by a processor and encoding a program of instructions including instructions for performing the apparatus operations recited in claim 19.